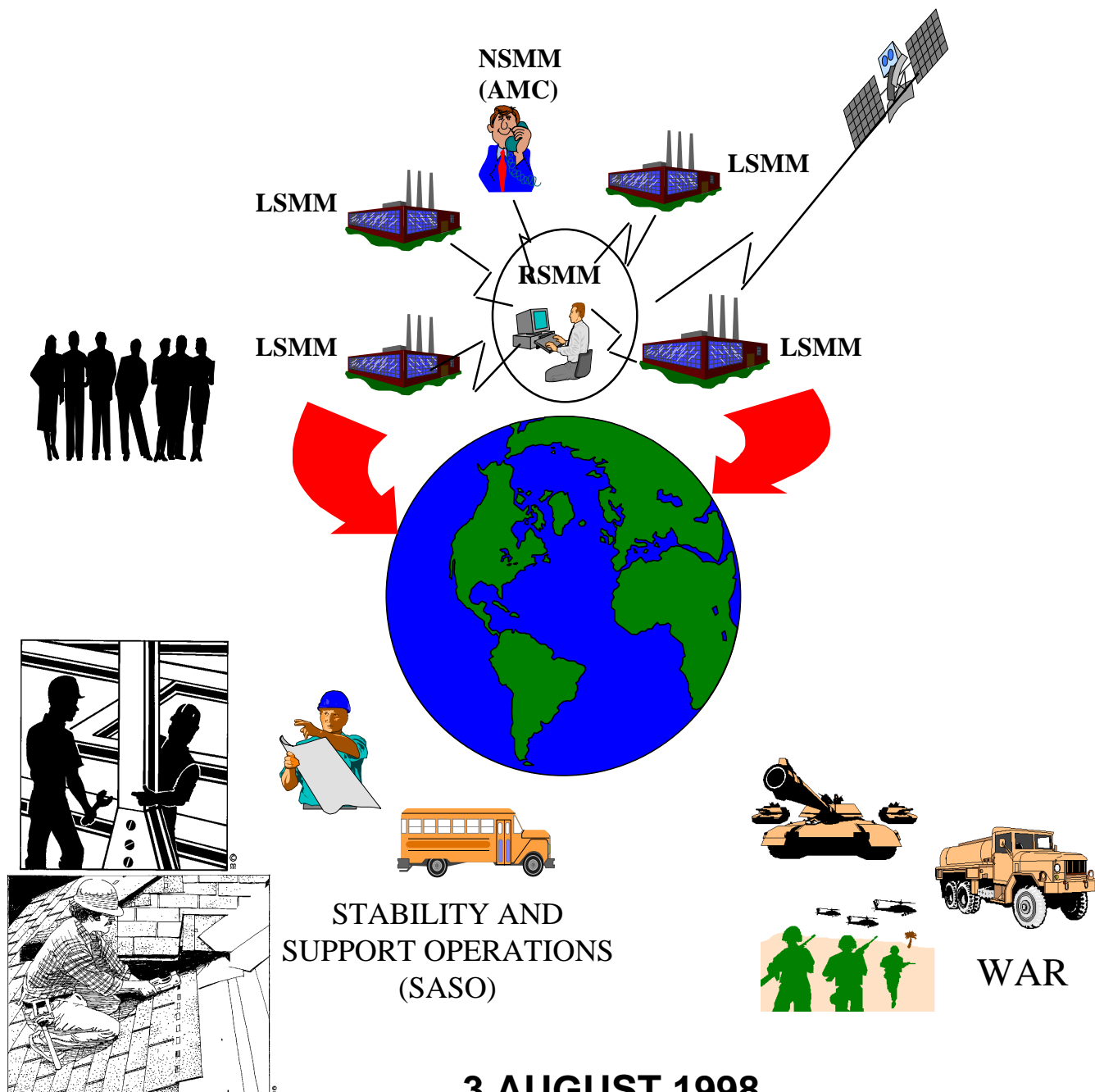


INTEGRATED SUSTAINMENT MAINTENANCE CONTINGENCY CONCEPT



FOREWORD

The Integrated Sustainment Maintenance (ISM) Contingency Concept provides the initial framework for future sustainment maintenance operations across the full spectrum of operational environments ranging from stability and support operations (SASO) to war. The concept streamlines sustainment maintenance performed on Army/non-Army components and end items above the direct support level during Army supported operations. It also supports the overarching concept of TRADOC Pamphlet 525-5, Force XXI Operations, by providing tailorable, modular, strategically deployable sustainment capabilities necessary to support the warfighter.

The Army's missions require sustainment maintenance capability through the entire range of contingency operations. During mobilization for contingency operations, the theater support structure focuses on two support missions:

- a. Adjusting sustainment maintenance capabilities to deploy force projection forces to theater.
- b. Ensuring that sufficient assets are available when the force arrives to provide materiel from war reserves and host nation equipment.

ISM focuses on centralized management with decentralized execution of all sustainment maintenance activities less medical. This management strategy is achieved through management consolidation of all sustainment maintenance activities under an integrated structure to support the warfighter's operational tempo requirements. It has an operational structure that can accommodate mobilization, deployment and split-based operations, and a management support structure that supports theater operations.

The contingency concept is based on several assumptions. These include a force projection strategy; a logistics system that must support joint/combined operations; a seamless logistics system, breaking the barrier between wholesale and retail that supports a theater of operations; continued reliance on Reserve Component (RC) and civilian logistics support; and continued pressure for DOD outsourcing.

Military Operations

INTEGRATED SUSTAINMENT MAINTENANCE

Availability. This publication is also available on the TRADOC Homepage at <http://www.tradoc.army.mil>.

Chapter 1

Introduction

1-1. Purpose. This document describes Integrated Sustainment Maintenance (ISM), a Headquarters, Department of Army (HQDA) initiative to streamline sustainment maintenance performed on Army/non-Army components and end items (less medical) above the direct support level during Army supported operations.

1-2. References. Required and related publications are listed in appendix A.

1-3. Explanation of abbreviations and terms. Abbreviations and special terms used in this pamphlet are explained in the glossary.

Chapter 2

Overview

2-1. Why the Concept Is Needed.

a. Current sustainment maintenance (GS and depot) doctrine does not allow maximum flexibility for integration of sustainment capabilities throughout the Army. It is fragmented and duplicative, and there is no single Army maintenance organization with visibility or responsibility for managing sustainment maintenance. Contingency operations place unique stresses on the maintenance system. Generally these operations require tailored mixes of sustainment personnel not battle rostered for a specific operation. Operation Desert Shield/Desert Storm (ODS/S) accentuated the fragmented nature of peacetime control of sustainment activities. Theater planners at the U.S. Central Command (CENTCOM) were unable to pass their support requirements to a single Army element. Instead, CENTCOM staff coordinated sustainment maintenance requirements with the Army staff, Forces Command (FORSCOM), Army Materiel Command (AMC), other Major Commands (MACOMs), National Guard Bureau (NGB), and Office of Chief, Army Reserve (OCAR). Deployability of sustainment maintenance units presented a series of challenges. Challenges inherent in mobilizing and deploying such units did not end upon arrival in Southwest Asia (SWA).

Because of differences in assigned equipment and weapon systems, Reserve Component (RC) units often lacked experience to repair equipment organic to active component units. These same challenges continued with other contingencies in Somalia, Haiti, and Bosnia. Much of the peacetime GS capability is provided by Table of Distribution and Allowance (TDA) organizations at Active Component (AC) installations, Combined Support Maintenance Shops (CSMS), Mobilization and Training Equipment Sites (MATES) with Support, and other activities of these types. These activities are not deployable and their equipment and skilled personnel may not be available in a theater of operations. In addition, over 80 percent of the Army's GS maintenance units reside in the RC. As the Army continues to draw down its forces, its mission will not decrease. The Army must redesign organizations to meet sustainment maintenance requirements. Access to all sustainment capabilities that can be tailored to support future military operations is imperative.

b. The future Army, Army XXI, must be prepared to face the full spectrum of operational environments ranging from SASOs to war. The Army must design organizations and develop capabilities to be rapidly tailorable and expandable. They must be strategically deployable and effectively employable as part of a joint or multinational team capable of a rapid and decisive victory across the operational continuum. As Army XXI develops to accommodate the challenges of a new strategic and operational environment, the Army must revise support concepts and redesign the force at all echelons to integrate necessary AC/RC, civilians, and industrial base capabilities.

2-2. Background. The ISM concept began as a HQDA Deputy Chief of Staff for Logistics (DCSLOG) initiative in Dec 91. The original concept called for the ISM structure to be located in the AMC which would have been assigned the responsibility for controlling and managing all the personnel (Active, Reserve, DOD civilians, DOD contractors), equipment, and facilities required to provide sustainment maintenance whether in garrison or deployed. A derivative of this concept was tested in 1993

within III Corps. Local sustainment maintenance management (LSMM) offices were established at Forts Hood, Riley, Carson, and Texas National Guard (NG) MATES with support. The 238th GS Maintenance Co, a reserve unit, was workloaded by AMC. The first test placed the Regional Sustainment Maintenance Manager (RSMM) in 13th Corps Support Command (COSCOM), III Corps, to workload the region with little involvement from AMC. The demonstration proved its worth and FORSCOM adopted this derivative of the original concept as the Corps Managed Regional Repair Program (CMRRP). Later in 1994, it was decided to expand to other MACOMs, AMC, FORSCOM, TRADOC, NGB, OCAR, to demonstrate crossing MACOM lines. Again, the test proved worthwhile and in Feb 96, a 12-star review, consisting of the Commanders of FORSCOM, TRADOC, and AMC, recommended implementing ISM Army-wide to the Chief of Staff, Army (CSA). The Army leadership approved ISM implementation in May 96. It is projected that by 4th Qtr FY 98, AMC will staff and manage the national and regional levels with MACOMs staffing and managing the local levels. This transition is based on the assumption that all specified "enablers," as defined by the MACOMS, are in place to support full ISM implementation. References used to develop the contingency concept are contained in Appendix A.

2-3. Threat.

a. Deterring and defeating aggression in major regional conflicts. U.S. forces must be capable of off-setting the military power of regional states whose interests oppose those of the U.S. and its allies. The U.S. (in concert with regional allies) must be able to deter and, if necessary, defeat aggression by projecting and sustaining U.S. power in two nearly simultaneous major regional conflicts.

b. Providing credible overseas presence. Some U.S. forces must be forward deployed or stationed in key overseas regions in peacetime. These deployments will contribute to a more stable and secure international environment by demonstrating U.S. commitment, deterring aggression, and underwriting important bilateral and multilateral security relationships. Forward stationing and periodic

deployments will also permit U.S. forces to gain familiarity with overseas operating environments, promote joint and multinational training among friendly forces, improve interoperability with friendly forces throughout the world, and provide a capable response to crises.

c. Conducting military operations. The U.S. must be prepared to, operate in the full range of military operations. These include stability and support operations (SASO).

d. Countering weapons of mass destruction (WMD). While the U.S. is redoubling its efforts to prevent the proliferation of weapons of mass destruction, military capabilities must be improved to deter and prevent the use of these weapons. The U.S. is pursuing this objective by maintaining adequate retaliatory capabilities and by increasing capabilities to defend against WMD.

2-4. Capstone concept. The ISM concept supports the capstone concept of TRADOC Pamphlet 525-5, FORCE XXI Operations, by providing tailorable, modular, strategically deployable sustainment maintenance capabilities necessary to support the warfighter in any operational environment.

2-5. Joint concepts. ISM also supports Concept for Future Joint Operations 2010.

2-6. Other concepts. In developing the ISM concept the following TRADOC approved concepts in TRADOC Pamphlet 25-30 were reviewed: TRADOC Pamphlet 525-77 Battle-field Distribution and TRADOC Pamphlet 525-53 Concept for Service Support.

2-7. Assumptions.

a. Strategic planning guidance will continue to articulate a force projection strategy, maintain a limited overseas force presence, and require DOD participation in major regional conflicts.

b. Future logistics operations will continue to be joint and/or multinational in nature, requiring a logistics system to support combined and joint operations.

c. The Army's long term goal will remain a seamless logistics system that provides common item support in a theater of operations. This system will:

(1) Feature a single stock fund that integrates the current wholesale and retail stock funds.

(2) Include standard processes, automation, data, and compatible standards of performance as part of an integrated whole.

(3) Integrate the industrial base, DOD civilians, Defense Logistics Agency (DLA), DOD contractors, and the private sector.

d. The AC will continue to rely on RC logistical capabilities to support combat operations and stability and support operations. Since the RC will continue to maintain a significant portion of the Army's logistics force structure, it will require training on new equipment and technologies.

e. Pressure on the Defense Department to outsource support will continue.

f. Total Asset Visibility (TAV) and in-transit visibility (ITV) will allow many functions to be centralized and will improve current levels of support. This visibility combined with accelerated delivery techniques such as Velocity Management (VM) and direct vendor delivery will reduce Authorized Stockage List (ASL) requirements.

g. The Army's long term goal will remain the development of predictive models to forecast deployment and high operational tempo (OPTEMPO) consumption requirements, thereby allowing maintenance activities to meet repair requirements.

h. Future deployments will not be characterized by logistics push operations. Pushing supplies based on inadequate modeling generates excess. Supplies cannot remain where delivered, wasting transportation assets and creating redeployment requirements.

i. ISM will be fully implemented and functional across all Army components.

2-8. Limitations. The functional ISM concept will be limited by:

a. Lack of standardized and integrated maintenance and supply automated systems to provide horizontal and vertical visibility of maintenance capability and capacity at the local, regional, and national levels to meet commanders' priorities in the short/mid term.

b. Inadequately trained personnel. (learning curve)

c. Short/Mid term lack of enablers to predict repairs and workload.

d. Inadequate communications which could impact on maintenance management automation requirements, total asset visibility, intransit visibility, situational awareness, and split-based operations.

e. Inadequate transportation assets.

f. Lack of infrastructure to support sustainment maintenance operations i.e., buildings, roads, power, and utilities.

g. Inadequate or no host nation support.

Chapter 3 Concept

3-1. General. Sustainment maintenance refers to all maintenance performed on Army/non-Army equipment above the direct support maintenance level. It includes maintenance performed by AC/RC GS maintenance units, non-divisional Aviation Intermediate Maintenance (AVIM), TDA maintenance activities, depots, Specialized Repair Activities (SRAs), Forward Repair Activities (FRAs) and contractors who operate out of fixed or semi-fixed facilities. These activities must provide the same or expanded sustainment maintenance capabilities during contingency operations. Their primary mission is to repair and return materiel to the supply system. Secondary missions include providing backup direct support to supported units, training of both military and civilian personnel in select skills, and supporting other DOD, governmental and nongovernmental agencies, and coalition forces in theater.

3-2. Definition of Integrated Sustainment Maintenance.

a. ISM focuses on centralized management with decentralized execution of all Army sustainment maintenance activities less medical. This management strategy is achieved through management consolidation of all sustainment maintenance activities under an integrated structure. The goal of the ISM initiative is to optimize the total Army sustainment maintenance capability to support the

warfighter's OPTEMPO requirements during peacetime, stability and support operations, and war. The objectives of the ISM concept are:

- (1) To provide maximum effective sustainment maintenance support to Total Army logistics operations.
- (2) To provide visibility over Total Army sustainment maintenance capability and capacity.
- (3) To increase flexibility to balance and reallocate sustainment maintenance workload and to meet unprogrammed/surge requirements.
- (4) To achieve maximum cost effectiveness in accomplishing sustainment maintenance operations by adopting a "repair more, buy less" philosophy; consolidating or eliminating duplicate sustainment maintenance infrastructure; establishing consistent charge rates based on actual costs of doing business.

b. Under ISM, the Army is implementing a maintenance program that will result in efficiencies/economies in peacetime and has the flexibility to fully support contingency operations. Although ISM is still an evolving concept, it currently offers a streamlined structure that features:

- (1) National, regional, and local levels that coordinate repairs to ensure efficiencies are achieved and duplications minimized.
- (2) Automated interface between participating activities.
- (3) Operational structure that accommodates mobilization, deployment, and split-based operations.
- (4) A management support structure for theater operations to complement the Logistics Support Element (LSE) mission.

c. OPTEMPO requirements during peacetime, stability and support operations, and war. The objectives of the ISM concept are:

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- (4) A management support structure for theater operations to complement the Logistics Support Element (LSE) mission.

3-3. How ISM works during peacetime operations. The ISM management structure is depicted in Figure 3-1.

a. Currently, select TDA organizations (both AC/RC) have designated a LSMM with responsibilities to consolidate, integrate, and standardize local sustainment maintenance functions and optimize local savings/cost avoidance. The LSMMs have workloading responsibility for all Army sustainment maintenance units and activities in their local areas for component and/or end item repair. The LSMMs develop maintenance programs in conjunction with supply requirements to meet readiness/sustainment demands and training requirements which are passed to the RSMM for consolidation. Once the RSMM approves the maintenance program, selected LSMMs execute the programs by workloading internal maintenance activities or associate maintenance activities (AMAs) under the LSMM's workload authority. The LSMMs may also perform component or end item repair for

the national level. Repairable component and end item maintenance requirements beyond individual LSMM capability or capacity are elevated to the RSMM for decision to redistribute workload or request assistance. Select TDA activities have a supporting role in unit deployments. They provide materiel, supply, and maintenance support to accomplish the mobilization process based on priority of deploying units. The LSMM may be called upon to assist in unit training, mobilization, and deployment as well as providing sustainment maintenance support to deploying forces whether AC or RC. Through the ISM management structure, the LSMMs may assist units in bringing their equipment to appropriate maintenance standards during redeployment.

b. RSMMs prioritize and redirect the workload among LSMMs and develop regional repairable programs tailored to optimize weapon system availability to supported customers, promote cost avoidance, and support training requirements.

By consolidating regional requirements for low density equipment at the regional level, the RSMM is able to establish enough volume to support a repair program. RSMMs manage any shortfall or excess in LSMM capability/capacity by cross-leveling, reassigning workload, or elevating requirements to the national level.

c. The national sustainment maintenance manager (NSMM) located at the Industrial Operations Command (IOC) plays an important role in planning, developing, coordinating, and integrating sustainment maintenance operations for the Army during peacetime and contingency operations. At the national level, requirements are identified through repair or buy decisions for repairable items. In conjunction with the RSMM Office, the NSMM can provide item managers at the national inventory control points (NICPs) information that can assist them in repair and buy decisions that reduce unnecessary procurement of new assets and maximize cost avoidance. Future plans call

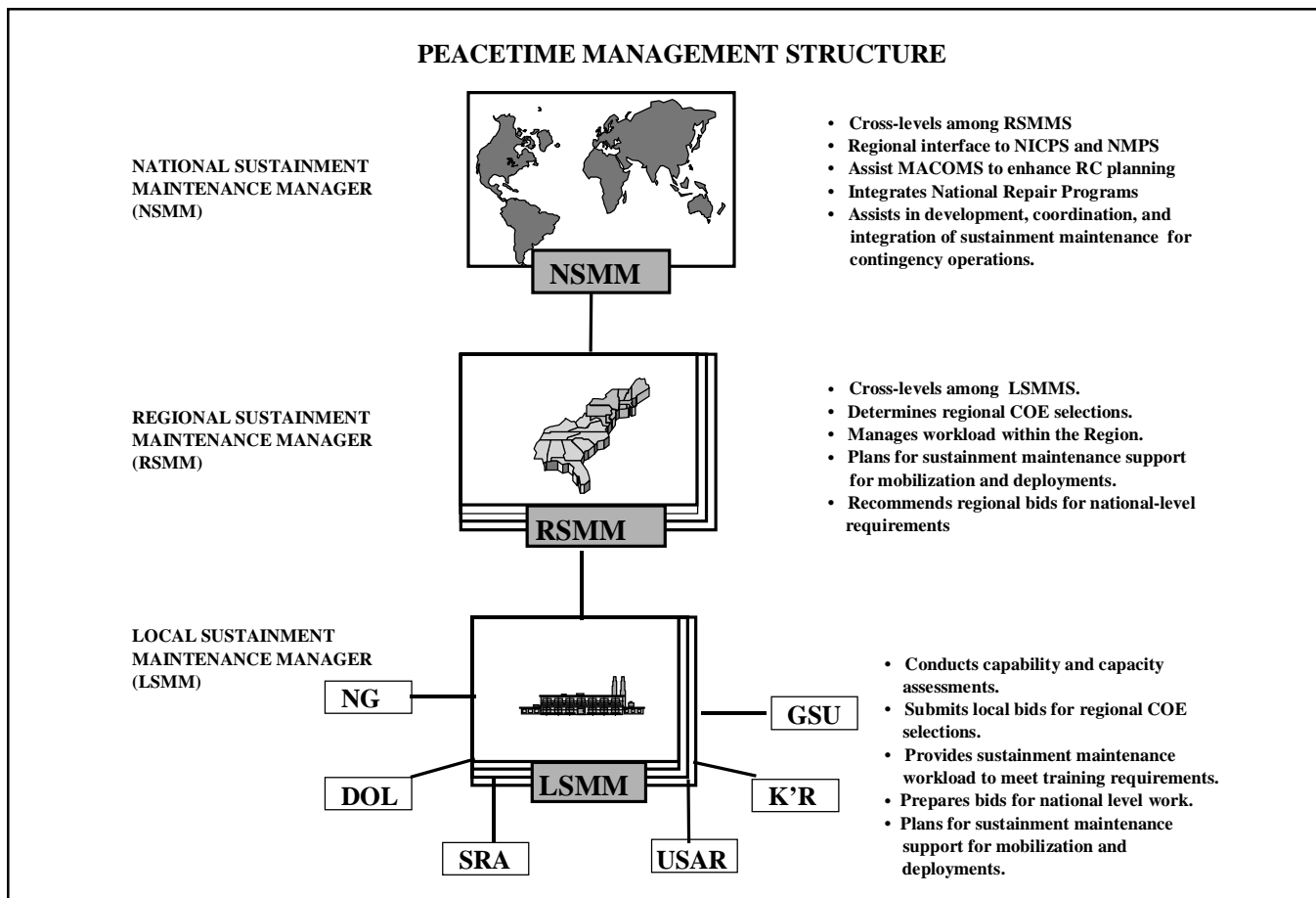


Figure 3-1 Peacetime Management Structure

for the NSMM to maintain oversight of national, regional, and local sustainment maintenance contracts for possible consolidation to reduce duplicate and redundant acquisition of repair/spare parts and services. By maintaining visibility of maintenance capacity and capability in the various regions, the NSMM may recommend distribution of national workload to improve capacity utilization. The NSMM assists regional and national agencies in resolving line stoppers and quality deficiency reports. In coordination with NICP Item Managers and MACOMs, the NSMM provides national level unserviceable assets to the regions to meet AC/RC training requirements.

d. Each region is organized to support the sustainment maintenance requirements of its customers. Regions may be designated to accommodate some of the demands placed on the national level sustainment maintenance system, as coordinated by the NSMM and RSMMs. In addition to regional and national (depot and contractors) capacities and capabilities currently available, the NSMM may seek to outsource additional requirements to accommodate contingency operations.

3-4. ISM during contingency operations.

a. Theater campaign plans are designed to conduct a series of related military operations to achieve strategic objectives in a given time and area. Through the theater campaign plan, the CINC defines theater tactical objectives, describes the tactical concept of operations and sustainment, allocates subordinate forces, establishes command relationships, sequences unified operations, integrates and synchronizes unified, joint, and multinational logistics and support operations. The CINC determines support requirements to include sustainment maintenance based on a combination of strategic factors. Some of these factors are:

- (1) Size of the operation and force to be supported; costs; duration; size/make-up of the theater support base.
- (2) RC mobilization; country cap; projected equipment densities; unusual or non-standard items of equipment to be supported.

b. The Army's missions require sustainment maintenance capability through the entire range of contingency operations. During mobilization for contingency operations, the theater support structure focuses on two support missions:

- (1) Adjusting sustainment maintenance capabilities to deploy force projection forces to theater.
- (2) Ensuring when the force arrives, sufficient assets are available to provide materiel from war reserves and host nation equipment.

c. When the CINC and the Army Service Component Commander (ASCC) require a tailorable logistics command and control (C2) element of the national base, to include sustainment maintenance capabilities, the Theater Support Commander (TSC) identifies Combat Service Support (CSS) force requirements and assigns tasks and priorities. The TSC serves as the single point of contact for the execution of support operations to receive, move, sustain, reconstitute, retrograde, and redeploy forces. The TSC will command and control assigned and attached units who support U.S. Army units, other services, DOD civilians, and contractors and may provide support to allied forces in theater. The NSMM, who has visibility of the capabilities and capacities of sustainment maintenance assets, can recommend an ISM support structure to provide required sustainment maintenance management functions, expanded national (depot) and backup maintenance support, and technical assistance to the TSC (See Figure 3-2). When mission, enemy, terrain, troops and time (METT-T) available conditions warrant, elements of a TSC will be deployed to the area of operations. The TSC structure is designed to take full advantage of modularized and flexible units designed to match incremental functional support capabilities to mission requirements. Modular designs enhance the early arrival of echelons above corps (EAC) support capabilities. Personnel from strategic level organizations are battle rostered as insertions to the TSC. As part of that modularized force, the LSE ISM support

structure can be provided to the TSC to perform sustainment maintenance management functions throughout the theater.

d. During deployments supported by split-based operations, a portion of the materiel management section will be deployed to coordinate maintenance management for the theater or corps, depending on the size and duration of operations. The Corps Materiel Management Center (CMMC) deploys a Materiel Management Team (MMT) for each deployed Corps Support Group (CSG). The CSG will normally be in support of a maneuver division. The MMT can perform CMMC item manager and liaison functions between the CSG and supported customers. The CMMC rear element, based in CONUS, will perform non-time sensitive management functions. The CMMC is a customer of the ISM program and does not perform repairs for the ISM program. Doctrinally, there are no sustainment maintenance units assigned to a CMMC or a Corps. Sustainment maintenance units are theater assets.

e. The NSMM has several key roles to ensure full support to deployed activities and continued support to the affected CONUS regions. These roles include :

(1) Providing recommended source of repair to meet additional requirements for mobilization, deployment, and stability and support operations.

(2) Providing battle-rostered personnel, trained and prepared to deploy as part of the ISM management structure. This includes automation necessary to perform the mission.

(3) Providing an expanded repair focus to the TSC.

f. An LSE may play a vital role in all types of contingency operations. It is typically deployed with a TSC and operates as far forward as METT-T permits. The NSMM may provide the LSE an ISM cell with an automated capability to provide visibility of sustainment maintenance capabilities available to the TSC. If requirements dictate an in-theater ISM program, a RSMM may be established to coordinate maintenance

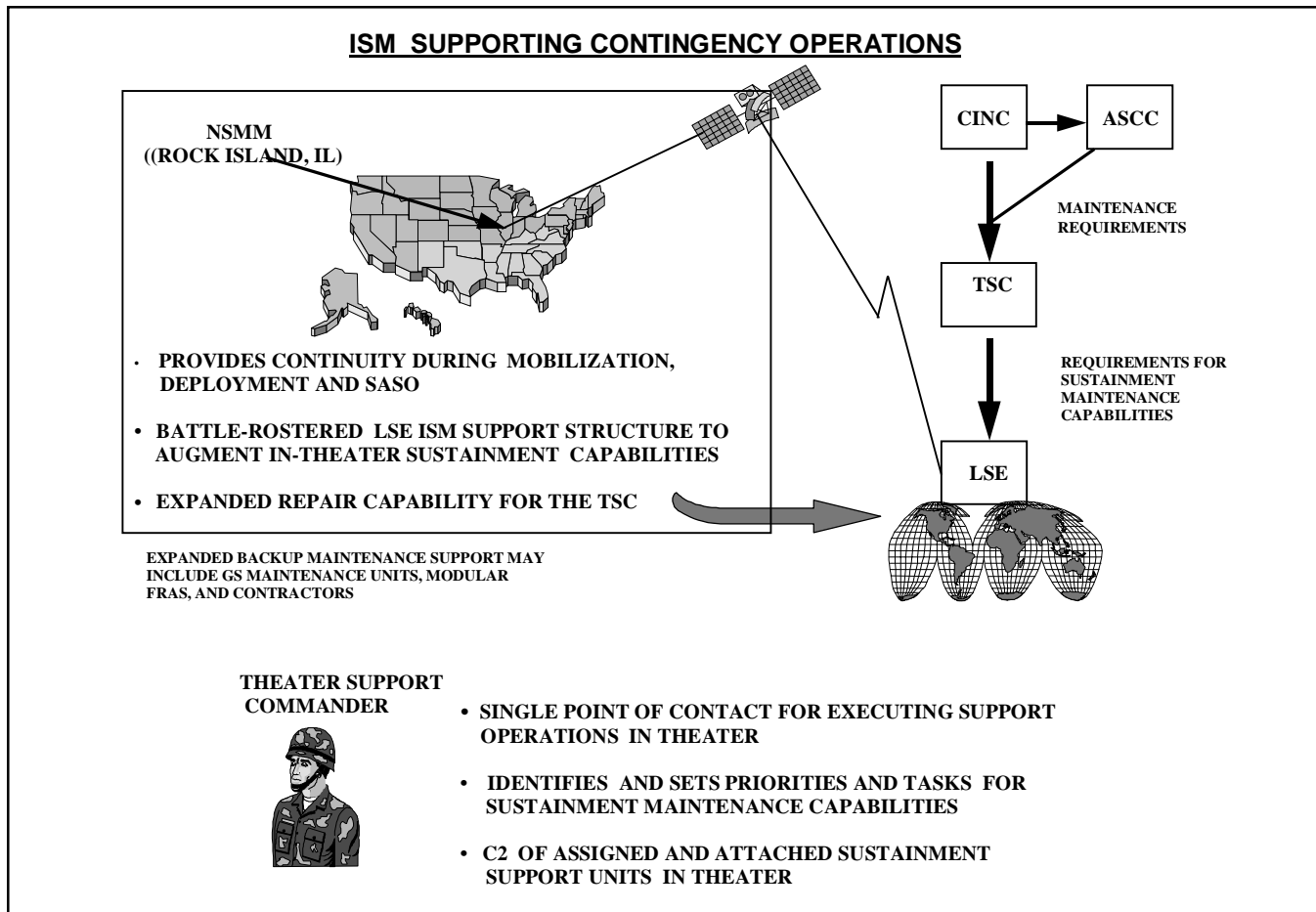


Figure 3-2 ISM Supporting Contingency Operations

requirements. The deployed structure falls under the operational control of the TSC with a direct link to the NSMM in CONUS. The LSE's ISM element will perform the following key missions and functions:

(1) Gain and maintain visibility over all sustainment maintenance work being performed in theater, on prepositioned ships, and war reserves regardless of component or branch of service.

(2) Determine surge capability within the theater's sustainment work centers/maintenance activities.

(3) Workload GS maintenance units, FRAs, and contractors and provide maintenance teams (depot and contractor support) as far forward as possible to enhance/reinforce maintenance support to the combat units.

(4) Coordinate with the NSMM to identify work that cannot or will not be accomplished in theater and coordinate shipment of unserviceables to the appropriate repair activity.

(5) Coordinate contractor technical assistance.

(6) Participate in planning for reconstitution operations in theater.

(7) Designate provisional COEs as required to support mission requirements.

Note: Figure 3-3 shows how the operations discussed above could operate in any environment.

g. The METT-T will determine where repairs will be accomplished. Key tools the ISM element will use to maintain visibility of capacity and capability of the sustainment maintenance activities are the various STAMIS for supply and maintenance management. In support of repair programs, the NICPs and the NSMM work together to stage component/repair parts for shipment to the theater, maintain visibility of assets while in transit using TAV, and distribute components within theater using battlefield distribution.

h. Theater redeployment requires an extensive reallocation of resources and skills.

The ISM management structure can assist in providing additional sustainment maintenance capabilities as required to bring redeploying units' equipment to appropriate maintenance standards. The disposition of the redeploying equipment drives how the LSE executes the operation. Items may be repaired in theater or retrograded. If the deployment is to another theater of operation, the equipment will be returned to appropriate maintenance standards. If equipment is turned over to the host nation, equipment condition will be restored as per the agreement between the host nation and the U.S. If no LSE is deployed to assist in or execute the operation, the TSC will coordinate with in-theater assets or contractor support to perform these responsibilities.

i. In many stability and support operations, it is conceivable that a full TSC structure is not warranted to meet mission requirements. In these cases, an LSE may be established within the area of operations that would control other DOD elements, assuming all logistical responsibilities to support the deployed commander. If required, the NSMM may provide an ISM support cell to the LSE with an automated capability to provide visibility of sustainment maintenance.

j. The NSMM may be required to provide sustainment support of reparable components or end items to foreign countries that bought equipment through foreign military sales.

3.5 Future Operational Capabilities

(FOCs). The following are the future operational capabilities required to successfully accomplish ISM enhancements to Army XXI.

IS 97-001: Client/Server Automation System

Description: Capability to quickly establish a client/server automation system in CSS at echelons Battalion and above. System will need to provide for Data Warehousing, communications in the Warfighter information Network (WIN), and CSS automation. Will provide an integration of (or seamless access to) existing logistics Standard Army Management Information System (STAMIS).

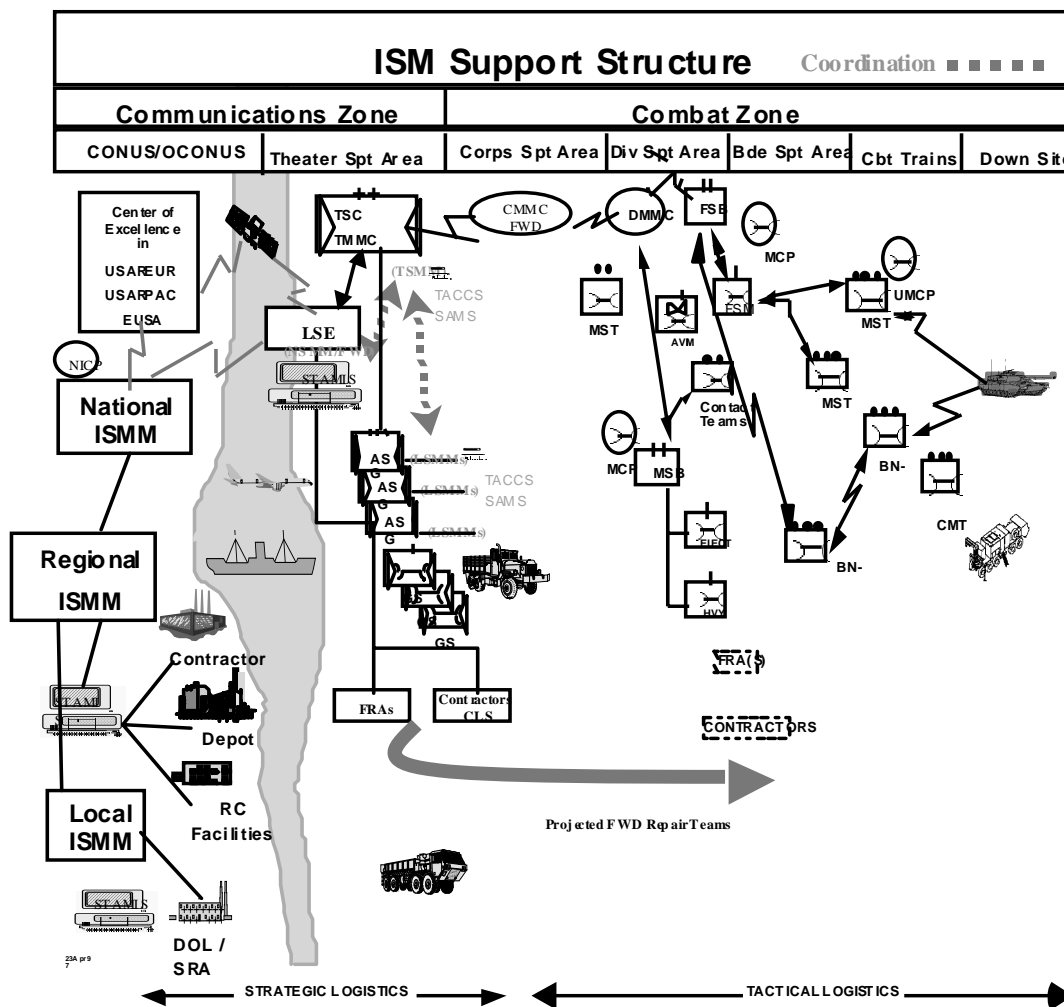


Figure 3-3 ISM Contingency Concept

IS 97-002: Wireless Communications Capability

Description: Capability to quickly establish a network of Combat Service Support computers using wireless communications technologies. Will provide rapid employment of Combat Service Support Automation during Peacetime Operations (Formerly Operations Other Than War: OOTW) and War at echelons battalion and above.

IS 97-003: Logistics Command, Control, Communication and Automation (C3A)

Description: Capability to link existing and evolving communications and automation systems. This capability must establish total integrated CSS/CS/CBT situation awareness and joint interactive decision aids. Will provide interface between the strategic, operational, and tactical areas of operations, low cost seamless, global, wireless, high data

communication links. There is also a requirement for identification and development of joint interactive decision aids to enhance strategic, operational, and tactical logistics operations. These decision aids should have the dual capability of being an effective training tool during normal unit training, large scale training exercises, provide logistics interface into Distributed Interactive Simulations (DIS) and other DOD systems.

IS 97-004: CSS Intranet

Description: Capability to perform CSS training and STAMIS functions on a high bandwidth, multi-level secure, CONUS to Battalion intranet using low cost software and hardware by leveraging commercial intranet products. Input devices, in addition to personal computers, should include Personal Digital Assistants (PDA).

OD 97-001: Force Sustainment Command

Description: Capabilities, as provided by an established command, to control all elements of logistical and explosive ordnance disposal support. Must consolidate and integrate force sustainment capabilities to provide support across range of operations. Will provide a single proponent for all doctrine, training, and force and materiel development for functions associated with the mission to provide maintenance, ammunition, and explosive ordnance disposal support.

OD 97-003: Anticipatory Logistics

Description: Capability to anticipate maintenance and supply requirements for major weapons systems. Will provide pre-assessed information on ammunition status, fuel status, progressive degradation of the system components, and forecast pending failure .

OD 97-004: Onboard Diagnostics and Prognostics

Description: The capability of onboard equipment to accurately diagnose failure and forecast pending failure of mission essential or high cost maintenance drivers on weapons systems. Operating data are either “sensed” by onboard sensors or read from the system’s internal digitized control network. These data are converted to useful information by the onboard computer. Information will be communicated to command and logistics activities using the Anticipatory Logistics-Command and Control-Based Digital Automated Information System.

OD 97-006: Contact Maintenance

Description: Capability to return equipment to service quickly at the equipment downsite. Will provide continuous maintenance operation, (mobile power source to operate tools, maintain repair parts stock, and on-board lift), with enhanced cross-country mobility, communications, and mounted weapons to defend against aggressors.

OD 97-008: Data Repositories

Description: Capability to create, maintain and allow for remote activities to access a wide range of data. Will provide instant access to a wide range of information including such things as system software updates,

maintenance information on foreign equipment or equipment belonging to a sister service, or foreign language files.

OD 97-014: Diagnostics and Prognostics

Description: Capability to diagnose and prognosticate maintenance actions for Force XXI systems correctly, the first time. Will provide Test Measurement and Diagnostic Equipment (TMDE), enhanced Built In Test (BIT) equipment and artificial intelligence to predict maintenance and ammunition requirements and feed this information, electronically, to current and projected automated CSS systems.

CS 97-003: Peace Operations Sustainment

Description: Capability to seamlessly transition from peace operations sustainment to wartime sustainment mode employing developed CSS systems and processes. Will employ existing and evolving sustainment equipment..

CS 97-004: In-Transit Visibility/Total Asset Visibility/Battlefield Distribution

Description: Capability to integrate tracking, materiel/carrier content status indication, and extended communications capabilities associated with all classes of supply, unit equipment, units, and required movement platforms. Will provide access to evolving technology improvements in the ability to effectively track and control of supply/distribution operations covering all levels of suppliers, customers/materiel users, supply locations, and delivery points; provide near real time or real time access to an established distribution system data base and control capabilities.

CS 97-005: Personnel Service Support (PSS)

Description: Capability to perform complete range of PSS both military and civilian functions associated with Personnel, Finance, Chaplain, JAG, and Public Affairs in conjunction with existing and evolving operational capabilities/processes while minimizing the footprint of related and interfacing command and communications systems. Will provide at the highest level possible near real time/real time personnel tracking, casualty tracking, mail tracking/

delivery, full-up communications capabilities to include FAX, VTC, satellite link, e-mail, and desktop computer applications, access to the full-range of functional Finance and accounting systems, and seamlessly interface with current and developing systems.

Chapter 4

Implications

4-1. Doctrine. Doctrine is defined as how the Army operates. Doctrine is a set of fundamental principles by which military forces guide their actions in support of national objectives. While doctrine, published in field manuals (FM) is authoritative, judgment is required in applying these principles. Maintenance doctrine is changing to reflect the organization, roles and missions of the local, regional, and national maintenance managers, relationships with the LSE and the TSC, how ISM operates in a contingency environment, and unique challenges faced by all sustainment maintenance activities. Policy requires revision to define the local and regional boundaries and assign MACOM responsibilities.

4-2. Training.

a. ISM introduces new maintenance business procedures which require changes in Army training. A training impact analysis is essential to assess the effect of maintenance doctrinal changes on Programs Of Instruction (POI), Army Training Evaluation, and any associated STAMIS training. TRADOC schools need to add ISM to existing training literature for all logistics-oriented professional development classes for both military and civilians.

b. The Army relies on the RC to perform sustainment maintenance during peacetime and provide a vast majority of sustainment maintenance CSS during contingency operations. The ISM structure assists in the train-up of RC on current and future weapon and logistics systems.

4-3. Leadership. Professional development courses ranging from entry level (e.g., warrant officer candidate school, branch officers basic and advanced courses) through

senior level (e.g., Logistics Executive Development Course, Command and General Staff College, Industrial College of the Armed Forces, Army War College, civilian equivalent training courses) must be revised to provide leaders with technical proficiency in maintenance management. A heavier reliance on the industrial base suggests that the services must expand the Training with Industry Program. Training Army logisticians to better anticipate requirements and to manage by exception will be key to battlefield success.

4-4. Organization. A fundamental tenet of ISM is that it will cause no net increase in the Army's personnel end strength. MACOMS will redistribute personnel to man the NSMM, RSMMs, and LSMMs. The Army's goal is to structure its forces to meet mission requirements in the most effective manner. An organizational assessment is performed when doctrinal changes occur or when roles and missions change to ensure that the organization can perform the missions assigned. Source documents establish the required force structure and equipment for an organization. Future logistics organizations must be modular, tailorable, and flexible to sustain contingency operations. Organizational design must also facilitate split-based operations.

4-5. Materiel. The future Army will require a smaller force to use various technologies to increase battlefield tempo, lethality, and survivability. New technologies will drive future materiel requirements, systems, and platforms. The goal is to provide flexible, prompt, and efficient sustainment on future battlefields. Automation is essential to provide visibility of all maintenance capabilities and capacities throughout the ISM structure.

4-6. Soldiers/civilians. Quality soldiers, trained and led by competent and caring leaders, remain the keystone to success on future battlefields. Civilian employees provide essential support and services to soldiers and Army organizations. The total force faces a variety of challenges in preparing for and executing missions across the

range of contingency operations. No additional MOSs or changes to MOSs are required; however, the current civilian personnel management system will require changes to provide essential training, enable increased experience through assignment moves, and foster promotion. Consideration should be given to coding positions as “emergency essential.” Job descriptions and career progressions must also be changed and incorporated into the civil service personnel system.

Appendix A References

FM 8-10-9
Combat Health Logistics in a Theater of Operations, Tactics, Techniques and Procedures

FM 9-43-1
Maintenance Operations and Procedures

FM 54-30C
Corps Support Group

FM 54-40
Area Support Group

FM 63-1
Support Battalions and Squadrons, Separate Brigades and Armored Cavalry Regiments

FM 63-2
Division Support Command Operations in Armored, Infantry and Mechanized Infantry Divisions

FM 63-2-1
Division Support Command Operations in Light Infantry, Airborne, and Air Assault Divisions

FM 63-3
Corps Support Command

FM 63-11
Logistics Support Element Tactics, Techniques, and Procedures

FM 100-5
Operations

FM 100-7
Decisive Force: The Army in Theater Operations

FM 100-10
Combat Service Support

FM 100-16
Army Operational Support

FM 100-17
Mobilization, Deployment, Redeployment, and Demobilization

FM 100-22
Installation Management

FM 700-80
Logistics

TP 525-5
Force XXI Operations

TP 525-53
Concept for Combat Service Support

TP 525-66
Future Operational Capability

TP 525-77
Battlefield Distribution

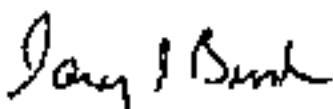
Appendix B Glossary

AC	Active Component
AMA	Associate Maintenance Activity
AMC	Army Materiel Command
ASCC	Army Service Component Commander
ASL	Authorized Stockage Lists
AVIM	Aviation Intermediate Maintenance
BIT	Built-In Test
BN/TF	Battalion/Task Force
CASCOM	Combined Arms Support Command
CBT	Combat
CENTCOM	US Central Command
CINC	Commander in Chief
CMMC	Corps Materiel Management Center
CMRRP	Corps Managed Regional Repair Program
COE	Center of Excellence
COMMZ	Communication Zone
C2	Command and Control
CONUS	Continental United States
COSCOM	Corps Support Command
CS	Combat Support
CSA	Chief of Staff, Army

CSG	Corps Support Group	ODS	Operation Desert Shield/ Desert Storm
CSMS	Combined Surface Maintenance Shops	OOTW	Operations Other Than War
CSS	Combat Service Support	OPTEMPO	Operational Tempo
DCSLOG	Deputy Chief of Staff for Logistics	PDA	Personal Digital Assistants
DIS	Distributed Interface Simulations	POI	Program of Instruction
DLA	Defense Logistics Agency	PSS	Personnel Service Support
DOD	Department of Defense	RC	Reserve Component
DOL	Directorate of Logistics	RSMM	Regional Sustainment Maintenance Manager
EAC	Echelons above Corps	SASO	Stability and Support Operations
FAX	Facsimile	SRA	Specialized Repair Activity
FM	Field Manual	STAMIS	Standard Army Management Information System
FOC	Future Operational Capabilities	SWA	Southwest Asia
FORSCOM	Forces Command	TAV	Total Asset Visibility
FRA	Forward Repair Activity	TDA	Table of Distribution and Allowance
FY	Fiscal Year	TMDE	Test Measurement and Diagnostic Equipment
GS	General Support	TOE	Table of Organization and Equipment
GSU	General Support Units	TRADOC	Training and Doctrine Command
HQDA	Headquarters, Department of the Army	TSC	Theater Support Command/ Theater Support Commander
IOC	Industrial Operations Command	US	United States
ISM	Integrated Sustainment Maintenance	USAR	United States Army Reserve
JAG	Judge Advocate General	VM	Velocity Management
K'R	Contractor	VTC	Video Television Conference
LSE	Logistics Support Element		
LSMM	Local Sustainment Maintenance Manager		
MACOM	Major Army Command		
MATES	Mobilization and Training Equipment Sites		
METT-T	Mission, Enemy, Terrain, Troops, and Time Available		
MOS	Military Occupational Specialty		
MMT	Materiel Management Team		
NG	National Guard		
NGB	National Guard Bureau		
NICP	National Inventory Control Point		
NSMM	National Sustainment Maintenance Manager		
OCAR	Office of the Chief, Army Reserve		

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